

Remarks

I. Status of claims

Claims 1-31 were pending.

Claims 2, 3, and 14-31 have been withdrawn from consideration.

Claims 5 and 14-31 have been canceled without prejudice.

The Examiner has indicated that claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. In response to this indication, claims 10 and 12 have been rewritten in independent form, including all the elements of the claims from which they depended. Claim 10-12 now are in condition for allowance.

II. Objection to the specification

The Title has been amended in a way that addresses the Examiner's objection. The objection to the specification now should be withdrawn.

III. Claim objections

Claim 13 has been amended in a way that addresses the Examiner's objection. The objection to claim 13 now should be withdrawn.

IV. Claim rejections under 35 U.S.C. § 103

A. Claims 1, 5, and 6

Claims 1, 5, and 6 are rejected under 35 U.S.C. § 103(a) over Codos (U.S. 2002/0044188) in view of Caiger (U.S. 6,145,979).

1. Claim 1

Independent claim 1 has been amended and now recites:

1. (Currently Amended) A method for use in a digital ink-jet printer, the method comprising:

applying a radiation-curable ink to successive locations on a substrate along a first print line in a first direction and

applying the radiation-curable ink to successive locations on the substrate along a second print line in a second direction opposite the first direction;

concurrently with the application of the radiation-curable ink along the first and second print lines, applying from a single radiation source first curing radiation of a predetermined first intensity to the applied ink along the first and second print lines, with a certain time delay, constant for all the locations on the substrate, between the applications of ink and the first curing radiation, wherein the applying of the first curing radiation along the first print line comprises directing the first curing radiation from the single radiation source toward the second direction, and the applying of the first curing radiation along the second print line comprises directing the first curing radiation from the single radiation source toward the first direction;

applying second curing radiation of a predetermined second intensity to the locations on the substrate a certain time period, constant for all the locations on the substrate, after the application of the first curing radiation to said locations.

The rejection of independent claim 1 under 35 U.S.C. § 103(a) over Codos in view of Caiger should be withdrawn because Codos in view of Caiger does not disclose or suggest all the elements of the claim.

For example, Codos in view of Caiger does not disclose or suggest the “applying” element as now recited claim 1 (i.e., “applying from a single radiation source first curing radiation of a predetermined first intensity to the applied ink along the first and second print lines, with a certain time delay, constant for all the locations on the substrate, between the applications of ink and the first curing radiation, wherein the applying of the first curing radiation along the first print line comprises directing the first curing radiation from the single radiation source toward the second direction, and the applying of the first curing radiation along the second print line comprises directing the first curing radiation from the single radiation source toward the first direction”).

In accordance with Codos' disclosure, two UV curing heads 645, 646 are used to provide the UV curing lights (see ¶ 82; FIG. 4).

In accordance with Caiger's disclosure, the curing radiation is directed from the radiation source in the same direction regardless of the direction in which the print head is applying ink. For example, in FIG. 1 Caiger discloses a first embodiment in which the curing radiation is directed from the laser 13 in the same direction regardless of the direction in

which the print head 5 is applying ink (see col. 3, lines 13-29). In FIG. 2, Caiger discloses a second embodiment in which a radiation-emitting head 19 is attached to the print head 5 and directs radiation in the same direction regardless of the direction in which the print head 5 is applying ink (see col. 3, lines 30-38: "... the radiation emitted by the emitting head 19 will always be at a fixed point downstream of the print head in the direction of travel of the substrate"). In FIGS. 3 and 4, Caiger discloses a third and fourth embodiments in each of which an elongate radiation source 27, 19 is mounted to the print head 5 and emits radiation in the same direction regardless of the direction in which the print head 5 is applying ink (see col. 3, lines 39-60). In FIG. 5, discloses a fifth embodiment in which multiple radiation-emitting heads 19 are mounted on the print head 5 and emit radiation in the same direction regardless of the direction in which the print head 5 is applying ink (see col. 3, line 61 -- col. 4, line 5).

Thus, neither Codos nor Caiger discloses or suggests the "applying" element as now recited in claim 1. Therefore, there is no combination of Codos and Caiger that possibly can disclose or suggest this element of claim 1.

For the reasons explained above, the rejection of independent claim 1 under 35 U.S.C. § 103(a) over Codos in view of Caiger now should be withdrawn

2. Claims 5 and 6

Each of claims 5 and 6 incorporates the elements of independent claim 1 and therefore is patentable over Codos in view of Caiger for at least the same reasons explained above in connection with independent claim 1.

B. Claim 4

Claim 4 is rejected under 35 U.S.C. § 103(a) over Codos (U.S. 2002/0044188) in view of Caiger (U.S. 6,145,979) and Nunez (U.S. 6,630,083).

Claim 4 depends from independent claim 1. Nunez does not make-up for the failure of Codos in view of Caiger to disclose or suggest the elements of independent claim 1 discussed above. Therefore, claim 4 is patentable over Codos in view of Caiger and Nunez for at least the same reasons explained above in connection with independent claim 1.

C. Claims 7 and 9

Claims 7 and 9 are rejected under 35 U.S.C. § 103(a) over Codos (U.S. 2002/0044188) in view of Caiger (U.S. 6,145,979) and Richards (U.S. 6,739,716).

Each of claims 7 and 9 depends from independent claim 1. Richards does not make-up for the failure of Codos in view of Caiger to disclose or suggest the elements of independent claim 1 discussed above. Therefore, claims 7 and 9 are patentable over Codos in view of Caiger and Richards for at least the same reasons explained above in connection with independent claim 1.

D. Claim 13

Claim 13 is rejected under 35 U.S.C. § 103(a) over Codos (U.S. 2002/0044188) in view of Caiger (U.S. 6,145,979), Richards (U.S. 6,739,716), and Young (U.S. 6,561,640).

Claim 13 depends from independent claim 1. Young does not make-up for the failure of Codos in view of Caiger to disclose or suggest the elements of independent claim 1 discussed above. Therefore, claim 13 is patentable over Codos in view of Caiger and Young for at least the same reasons explained above in connection with independent claim 1.

V. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,

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